



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,802	03/21/2000	Michael James Carey	AM9-99-0247	6497

33360 7590 04/14/2004

MARK D. MCSWAIN
IBM ALMADEN RESEARCH CENTER, IP LAW DEPT.
650 HARRY ROAD
CHTA/J2B
SAN JOSE, CA 95120

EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT	PAPER NUMBER
----------	--------------

2177

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/531,802

Applicant(s)

CAREY ET AL.

Examiner

Sathyanarayan Pannala

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this lines made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-13, 17-34, 38-44 are rejected under 35 U.S.C. § 102(b) as being anticipated by Monday (US Patent 6,480,860) hereinafter Monday.
3. Monday anticipated independent claims 1, 22, 43-44 by the following:
"mapping a number of relational database tables to a number of virtual XML documents" at Fig. 2, col. 7, lines 4-20;
"issuing XML queries over said virtual XML documents" at Fig. 1, 4, col. 4, lines 64-65 and col. 7, lines 24-25;
"parsing said XML queries" at col. 5, lines 18-24;
"It transforming said XML queries into a language-neutral intermediate representation" at Fig. 1, col. 5, lines 25-31;
"rewriting said language-neutral intermediate representation into an equivalent form easily translated into an SQL query" at Fig. 1, col. 5, lines 32-37;

"translating said equivalent form into an SQL query over said relational database tables and into tagging instructions passed to a tagger" at Fig. 1-2, 4, col. 5, lines 3-17 and col. 7, lines 46-50;

"executing said SQL query to produce SQL query results passed to said tagger" at Fig. 1, col. 5, lines 3-17;

"generating XML output using said SQL query results and said tagging instructions" at Fig. 2, 4, col. 7, lines 59-67.

4. As per dependent claims 2, 23, Monday anticipated "method operates over a distributed computing network" at Fig. 2, col. 8, lines 3-6.
5. As per dependent claims 3, 24, Monday anticipated "method operates over the Internet" at Fig. 1, col. 4, lines 52-63.
6. As per dependent claims 4, 25, Monday anticipated "mapping step operates recursively" at Fig. 2, col. 7, lines 50-53.
7. As per dependent claims 5, 26, Monday anticipated "mapping step operates manually" at Fig. 5, col. 9, lines 46-51 and col. 10, lines 18-21.
8. As per dependent claims 6, 27, Monday anticipated "mapping step maps said relational database tables to said virtual XML documents in a one-to-one manner" at Fig. 5, col. 9, lines 5-9.
9. As per dependent claims 7, 28, Monday anticipated by the following:
"how to select and relate data from said relational database tables" at Fig. 5, col. 9, lines 5-9;

- “how to construct and group new XML elements from data bindings” at Fig. 4, col. 9, lines 38-65.
10. As per dependent claims 8, 29, Monday anticipated “transforming step operates on at least one said relational database table and produces at least one output table” at Fig. 5, col. 9, lines 5-9.
 11. As per dependent claims 9, 30, Monday anticipated “operations include BIND operations” at col. 10, lines 10-14.
 12. As per dependent claims 10, 31, Monday anticipated “operations include SELECT operations” at Fig. 2, col. 7, lines 59-61.
 13. As per dependent claims 11, 32, Monday anticipated “operations include CONSTRUCT operations” at Fig. 2, col. 7, lines 62-64.
 14. As per dependent claims 12, 33, Monday anticipated “operations include JOIN operations” at Fig. 6, col. 8, line 67 to col. 9, line 4.
 15. As per dependent claims 13, 34, Monday anticipated “operations include GROUP operations” at Fig. 2, col. 7, lines 62-64.
 16. As per dependent claims 17, 38, Monday anticipated “tagger operates outside an RDBMS” at Fig. 2, col. 7, lines 4-20.
 17. As per dependent claims 18, 39, Monday anticipated “operations describing how to select and relate data are translated into an SQL query that establishes selection criteria and required relationships among data” at Fig. 5, col. 9, lines 5-9.

18. As per dependent claims 19, 40, Monday anticipated "operations describing how to construct and group new XML elements are translated into said tagger instructions" at Fig. 4, col. 9, lines 38-65.

19. As per dependent claims 20, 41, Monday anticipated "operations are reordered to be performed last" at Fig. 4-5, col. 9, line 59 to col. 10, line 3.

20. As per dependent claims 21, 42, Monday anticipated "language-neutral intermediate representation serves as said tagging instructions" at Fig. 1, col. 5, lines 25-31.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

22. Claims 14-16, 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monday (US Patent 6,480,860) hereinafter Monday and in view of Chen (US Patent 6,507,856) hereinafter Chen.

23. As per dependent claims 14, 35, Monday does not teach explicitly Nest operation. However, Chen teaches "operations include NEST operations" at Fig. 9, col. 6, lines 30-43. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate inputting relevant information to view image objects. Monday and Chen are combined as they teach XML and querying database and to incorporate exchanging and merging messages over network. In order to view data from database without the knowledge of database access queries, the XML is used to query and retrieve data from the database.

24. As per dependent claims 15, 36, Monday teaches the following:

"eliminating both S and B whenever S is followed by a BIND operation B, where S denotes the sequence of CONSTRUCT, GROUP, and CONSTRUCT operations following a table access for a default view of a table T, leaving just the table access for T" at Fig. 2, col. 10, lines 10-14 and col. 7, lines 62-64;

"replacing N by a JOIN operation, followed by S and a new GROUP operation which performs the child grouping that was previously done by N, where N denotes a NEST operation and S denotes any sequence of u CONSTRUCT and GROUP operations for the child input of N" at Fig. 2, col. 7, lines 62-64.

Monday does not explicitly teach NEST operation. However, Chen teaches NEST operation (at Fig. 9, col. 6, lines 30-43). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate inputting relevant information to view image objects. Monday and Chen are combined as they teach XML and querying database and to incorporate exchanging and merging messages over network. In order to view data from database without the knowledge of database access queries, the XML is used to query and retrieve data from the database.

25. As per dependent claims 16, 37, Monday does not teach nesting operation. However, Chen teaches "rewriting step may operate repeatedly for deeper levels of nesting" at Fig. 10A-B, col. 6, lines 43-49. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate inputting relevant information to view image objects. Monday and Chen are combined as they teach XML and querying database and to incorporate exchanging and merging messages over network. In order to view data from database without the knowledge of database access queries, the XML is used to query and retrieve data from the database.

Response to Arguments

26. Applicant's arguments filed on 2/13/2004 have been fully considered but they are not persuasive and details are stated below:

A) Applicants' argument stated as "Monday teaches a Java Bean being used underlying database. There is no explicit or implied notion of mapping a

relational database to a virtual XML document that can be used in an XML query, as described in the present application."

In response to the Applicants' argument, examiner respectfully disagrees because Monday teaches mapping XML query to a database (Fig. 2, col. 7, lines 4-20). It could be clearly interpreted from the Fig. 2 that XML translator (226) translates XML query to JavaBeans and the information obtained from the database in response to the user query, the information passed through JavaBeans is translated back to XML document for the user by the XML translator. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

B) Applicants' argument stated as "Monday nothing about intermediate representation like the one described in the present application, with BIND, GROUP, CONSTRUCT, etc."

In response to the Applicants' argument, examiner respectfully again disagrees because Monday do teach at Fig. 2, col. 10, lines 10-14 and col. 7, lines 62-64. Examiner once again would like to repeat the statement that the

instant application does not disclose any new or improvement to the existing prior art.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (703) 305-3390. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2177

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sathyanarayan Pannala
Examiner
Art Unit 2177

srp
April 13, 2004


BETA ROBINSON
PRIMARY EXAMINER